Warcbase:

Using Scalable Web Analytics to Analyze Canadian Collections En Masse

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Department of History

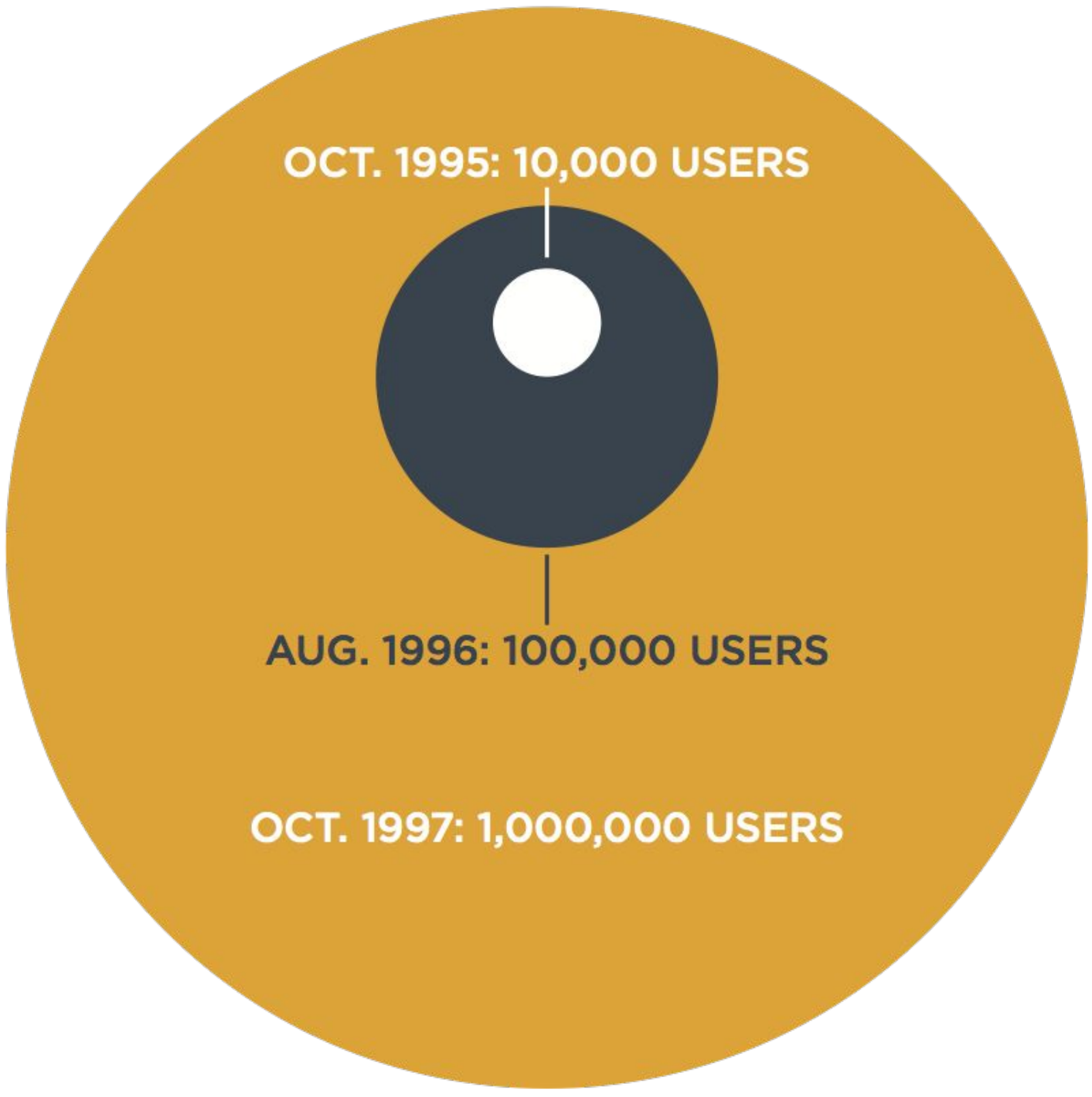
YORK
UNIVERSITÉ
UNIVERSITY

The Web as a Primary Source

- **Web archives will fundamentally affect the way historians write history**
  - We will have easier access to information on a previously-unknown scale, as well as improved capability to parse it;
  - This information will be left by people who rarely before left historical sources;

We live and experience our lives online, and historians need to study this.

And it’s all happening on a **scale historians have difficulty imagining!**




CONGRESSIONAL ARCHIVES
THOMAS P. O'NEILL PAPERS
PARTY LEADERSHIP / ADMINISTRATIVE FILES
Democratic Party
BOX 29
JOHN J. BURNS LIBRARY
BOSTON COLLEGE
374
CONGRESSIONAL ARCHIVES
THOMAS P. O'NEILL PAPERS
Series V
PARTY LEADERSHIP / ADMINISTRATIVE FILE
Democratic Party
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Scarcity

~~Scarcity~~

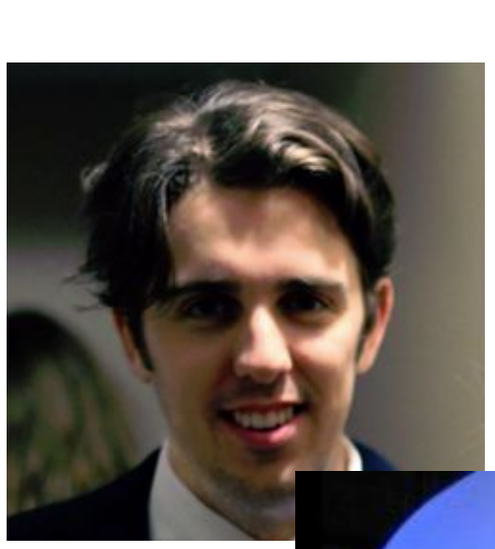
Abundance

Historians and other humanists can’t do it alone

We need collaboration!

Web Archives for Historical Research

Historians



Computer Scientists

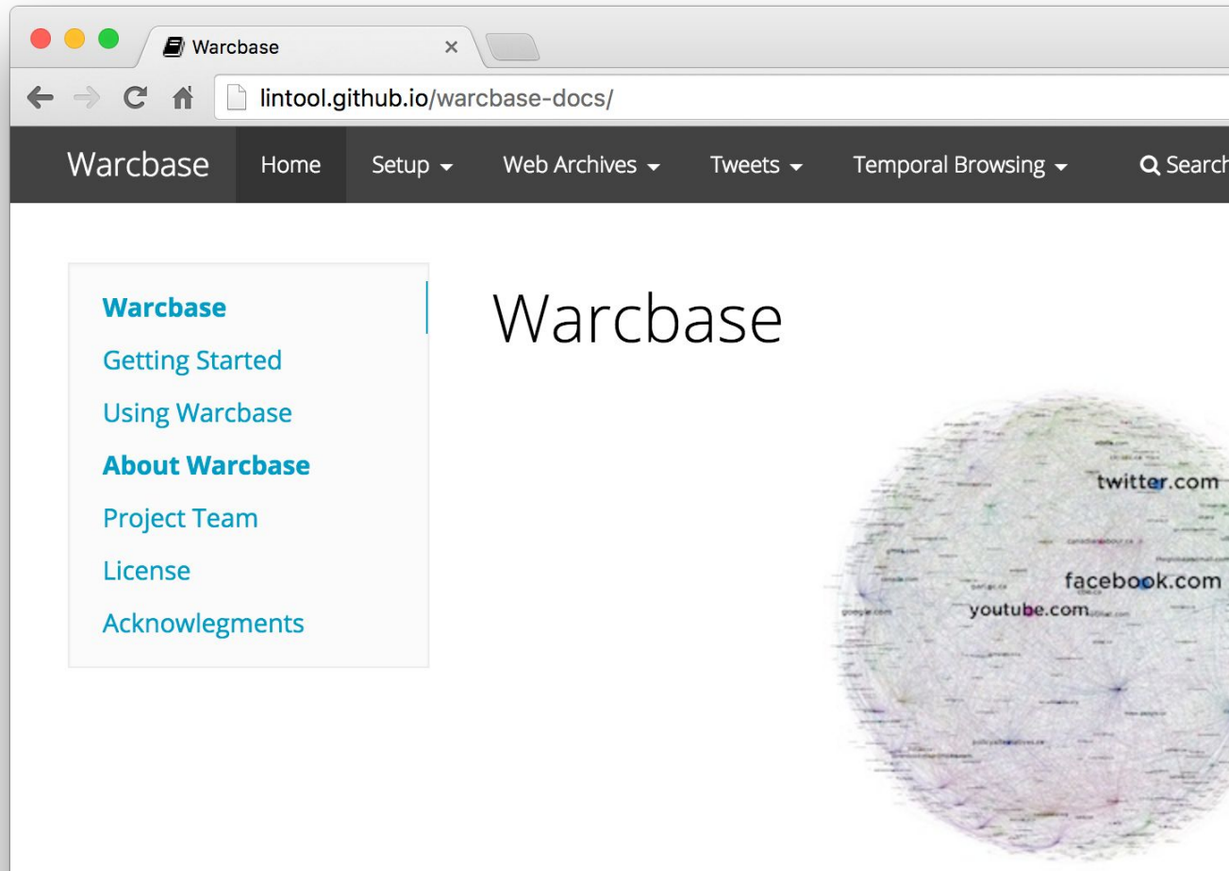
Librarians

Governance

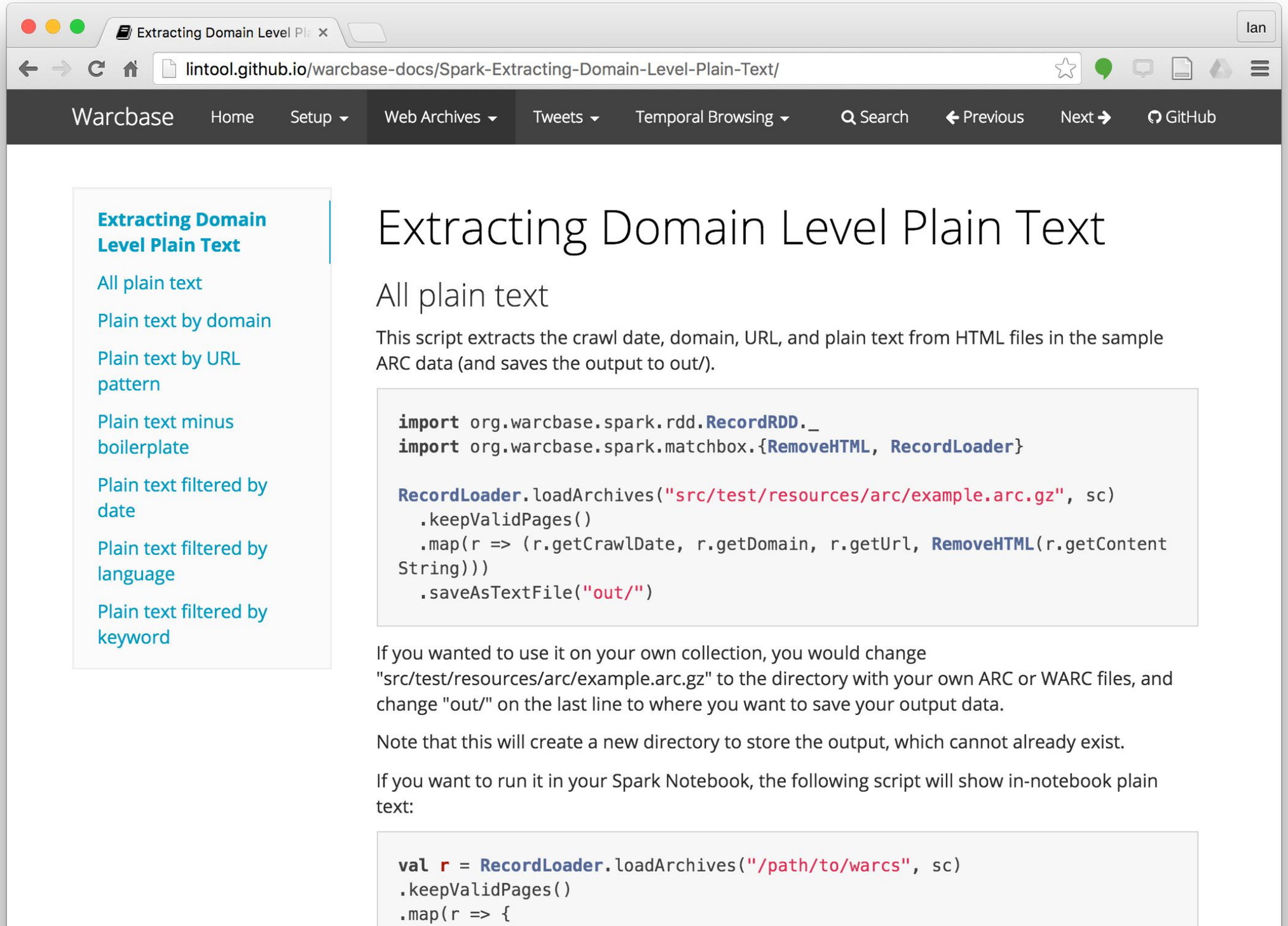
Warcbase

- **Jimmy Lin** (main developer, CS/lead), **Ian Milligan** (co-lead, history), **Jeremy Wiebe** (history/PhD), **Alice Zhou** (computer science, undergrad), **Youngbin Kim** (computer science, undergrad), **Nick Ruest** (librarian @ York)

- Currently using it on the **GeoCities** and **Canadian Politics** web archives, as well as WALK (61 Archive-It collections, 6 institutions)

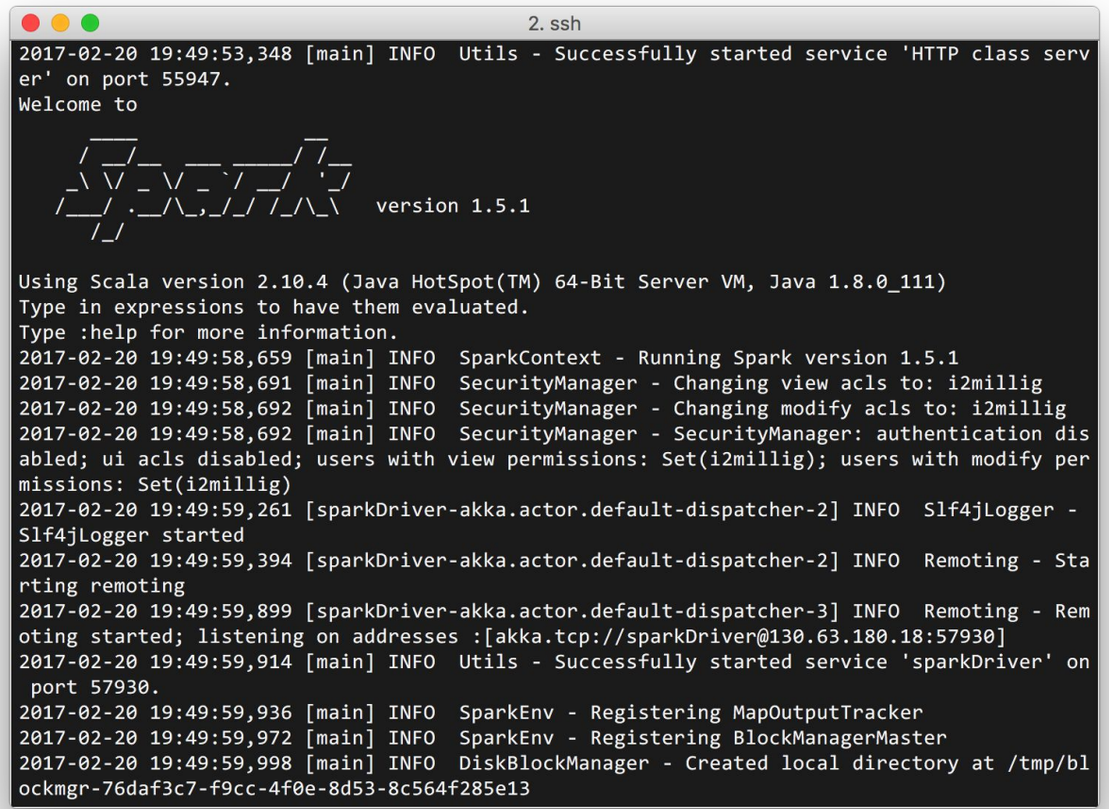


docs.warcbase.org



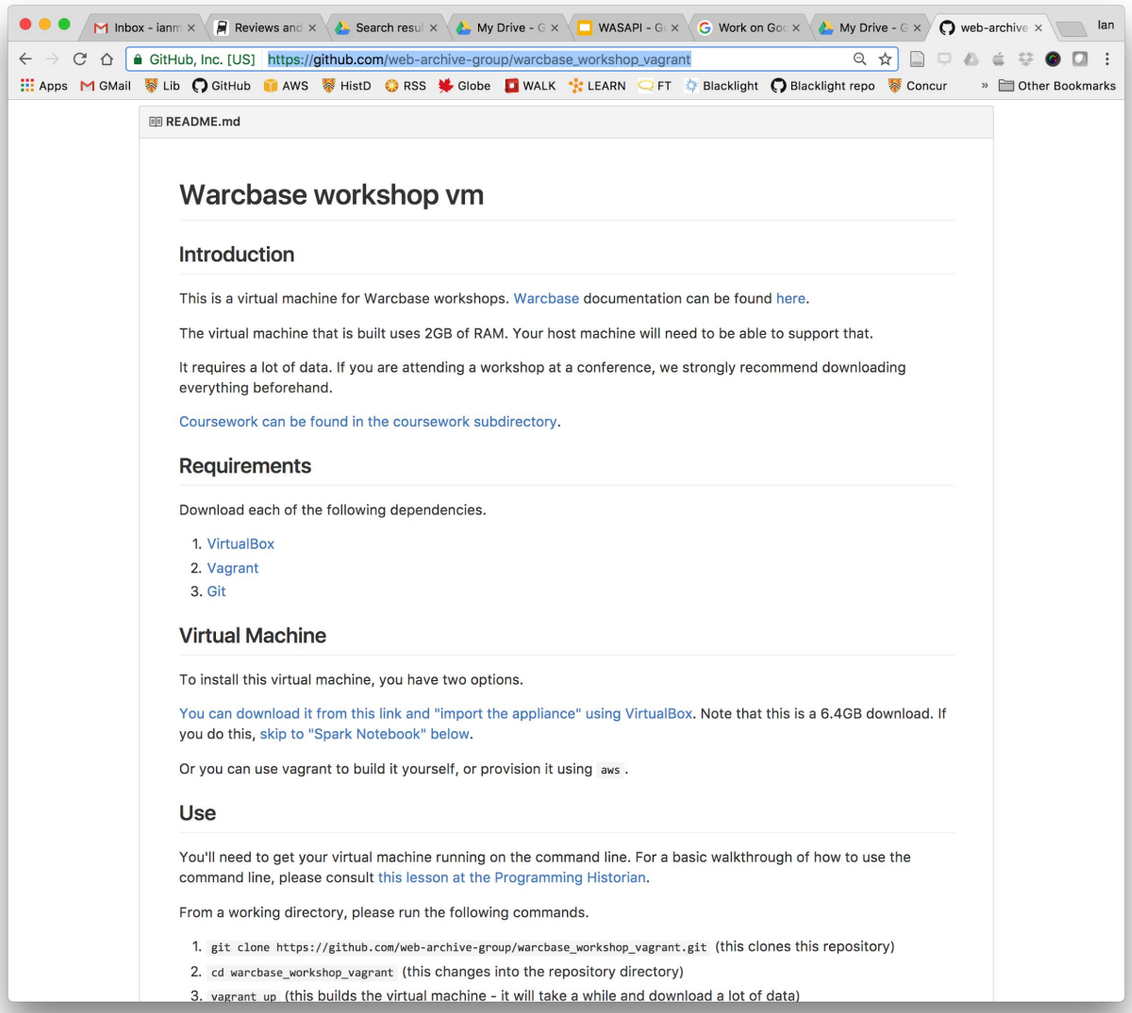
Installing Warcbase

- Install Spark, clone warcbase, build with maven
- Launch Spark Shell
- Run simple scripts (begin by copy-and-replacing our existing ones to get a feel for the interface)
- In the future, hoping to move to PySpark



…. Or the Warcbase Vagrant machine!

- Digital pedagogy FTW
- https://github.com/web-archive-group/warcbase_workshop_vagrant



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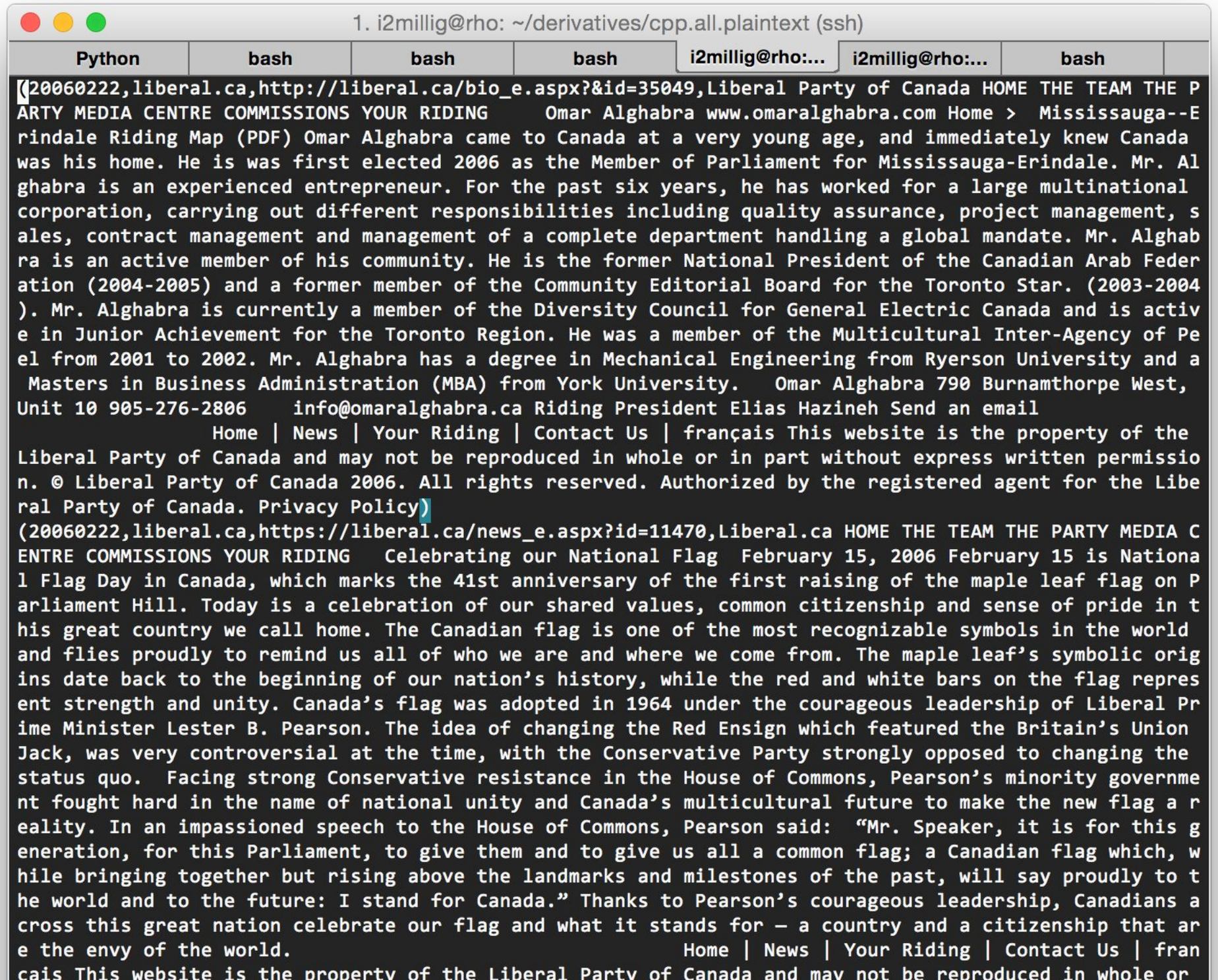

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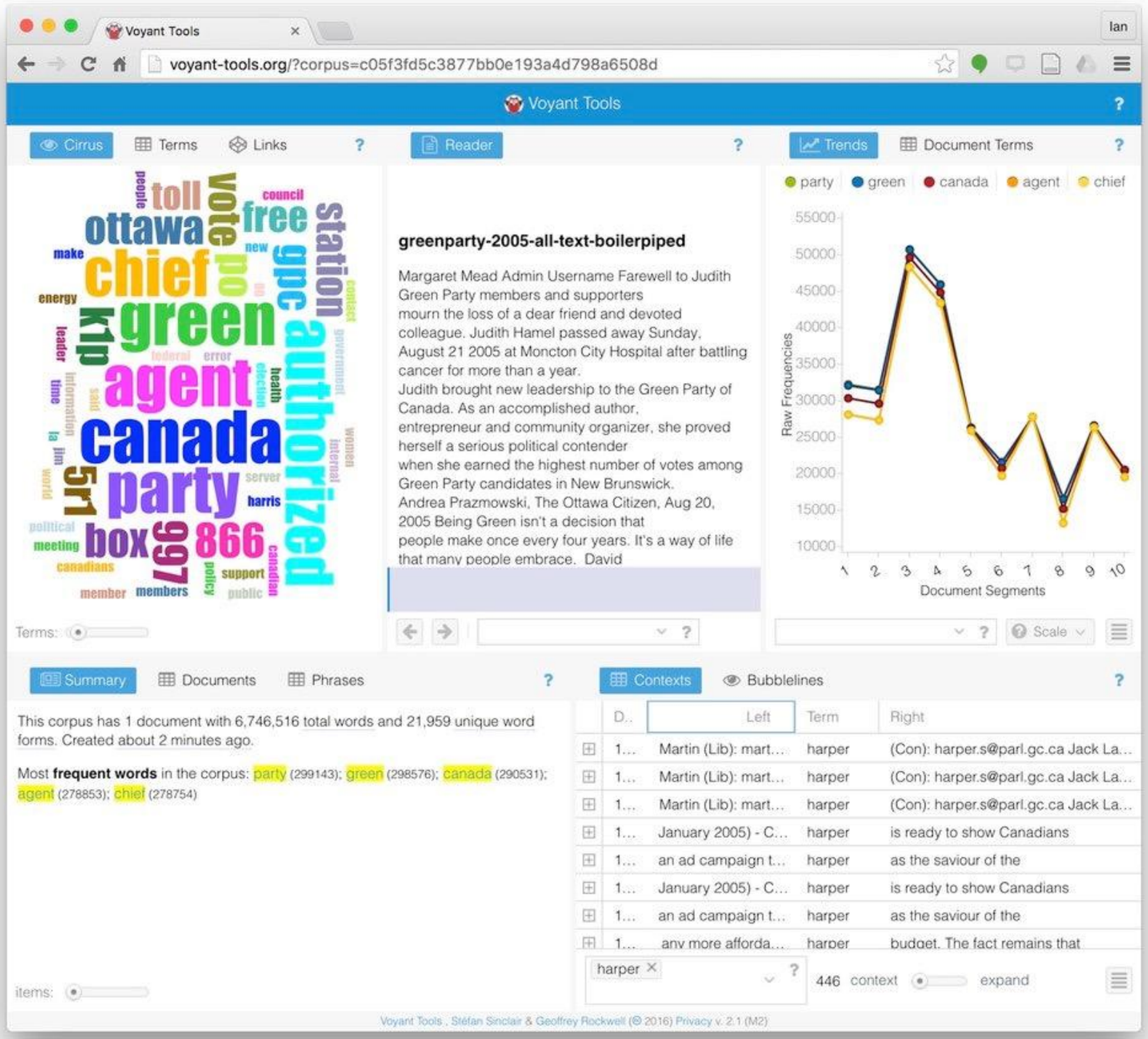

Extract Entities

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Bill Hulet
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Bush
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Cherfi
Chernushenko
David
David Chernsuhenko
David Chernushenko
David Kay
Derek Pinto
Ed Broadbent
Elizabeth May
Eric Walton
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Jim Harris
Jim Harris Speech
John
Julie Baribeau
Junker
Kevin Colton
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Mark Brooks
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Martin
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Paul Martin

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Peter Foster
Pierre Pettigrew
Schiller

Elizabeth May
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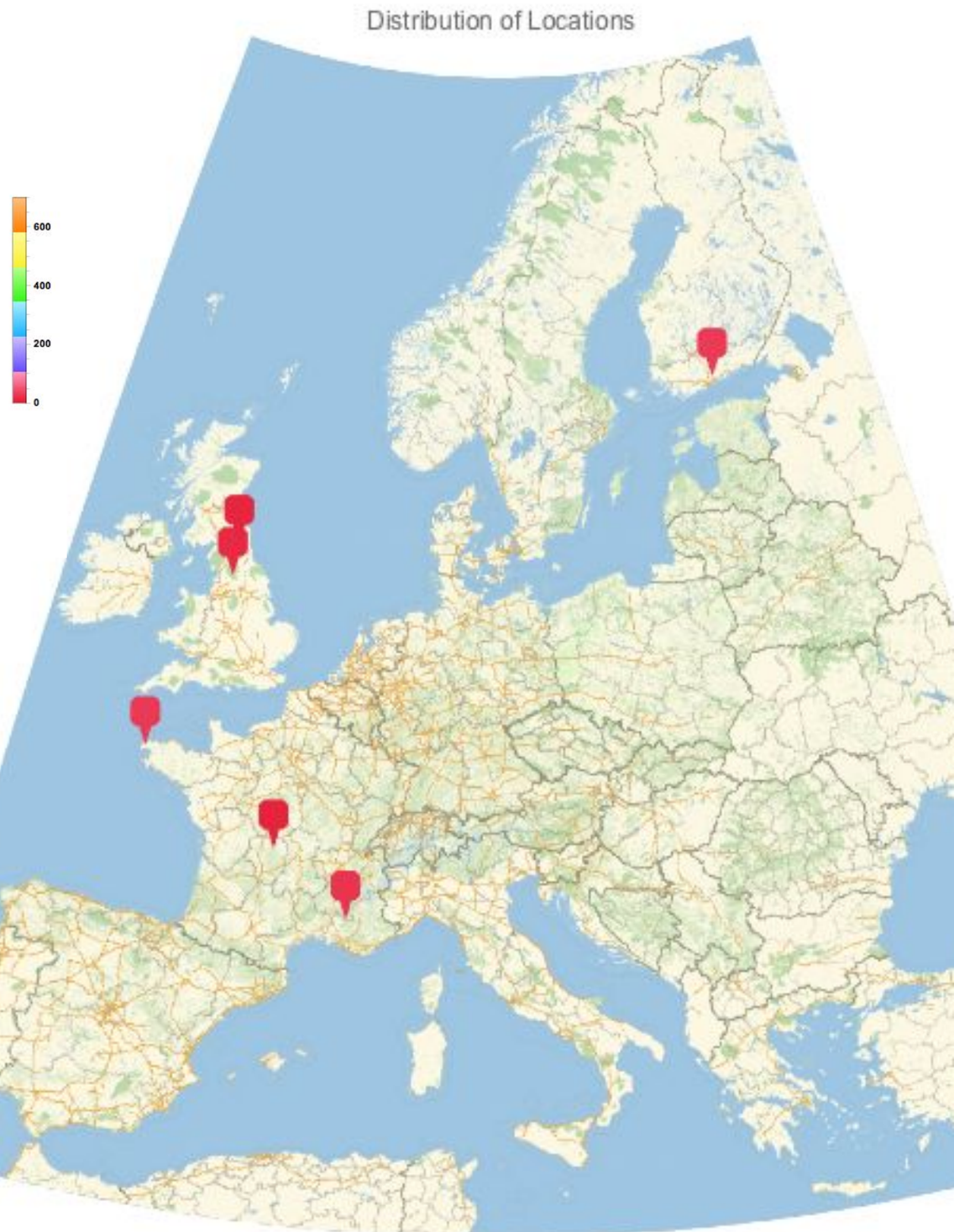
Extract Entities

Extract Entities

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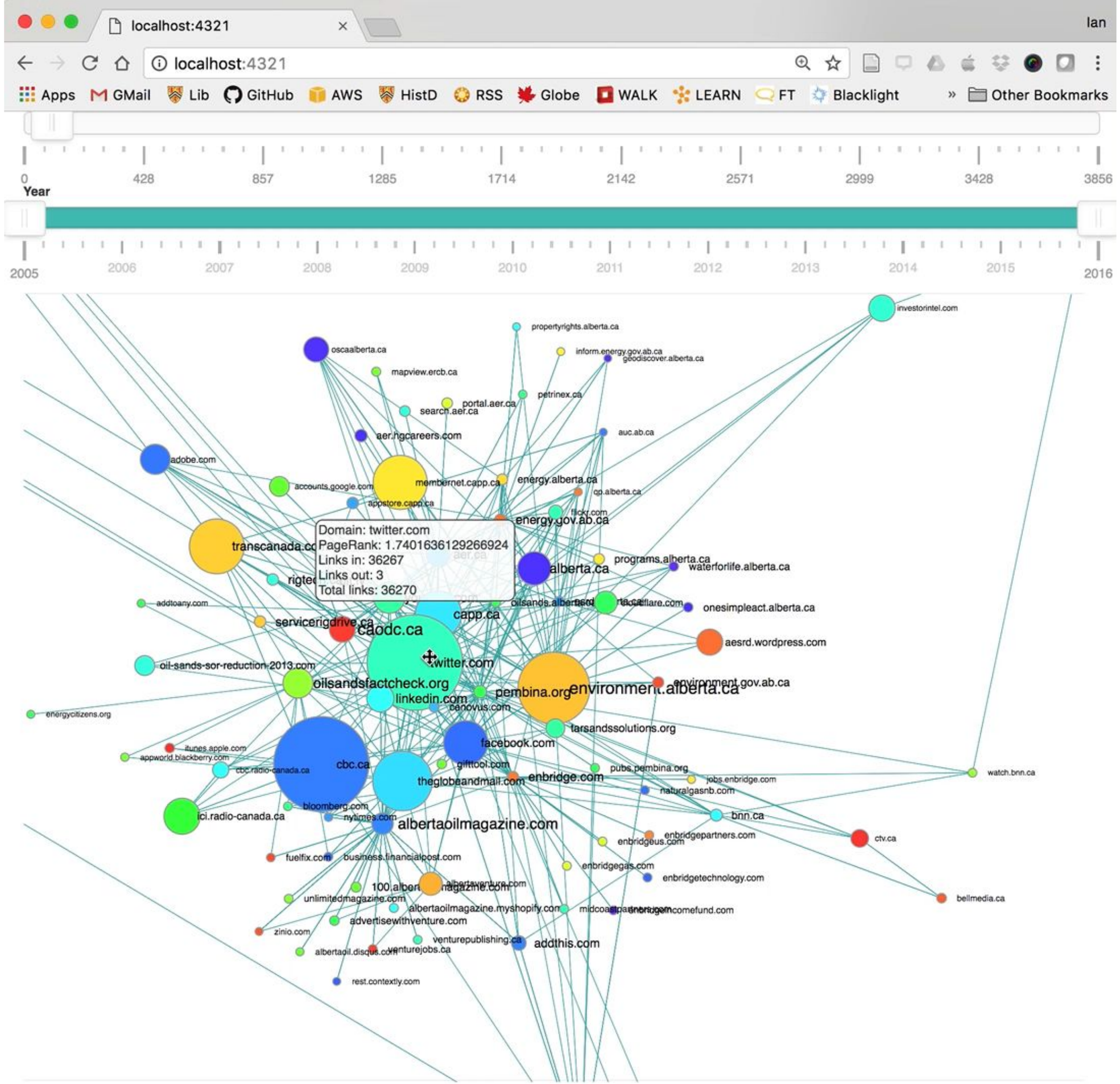
Finding Sites of Interest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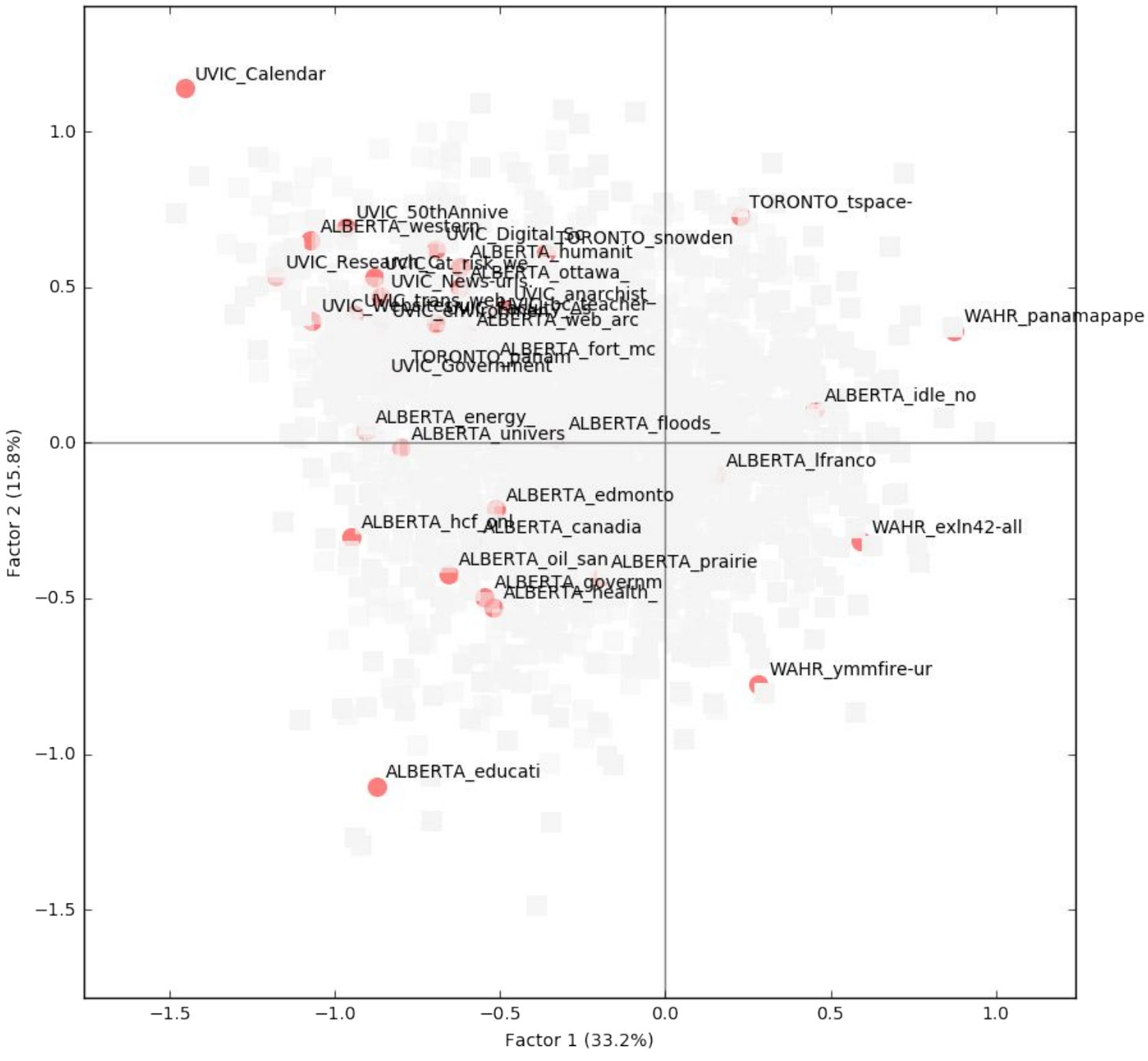
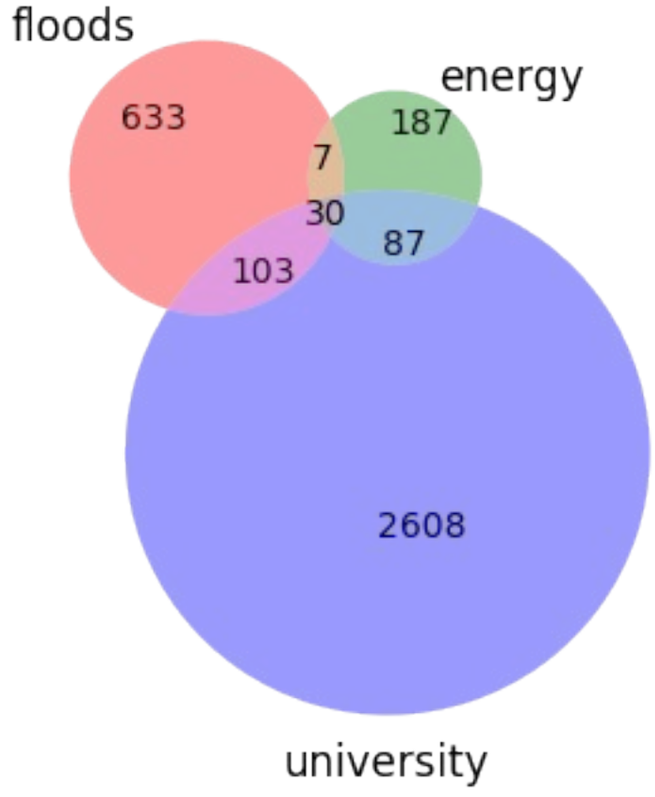
Exploring collection coverage and curatorial models





So we have this tool... how have we used it?

Scaling up

Web Archives for Longitudinal Knowledge

- **Ian Milligan** (Co-PI, UW) + **Nick Ruest** (Co-PI, York), w/ **Geoff Harder**, **Todd Suomela**, **Sonya Betz**, **Peter Binkley**, **Geoffrey Rockwell, Umar Qasim** (Alberta), **Jefferson Bailey** (Internet Archive), and **John Simpson** (Compute Canada).

Web Archives for Longitudinal Knowledge

- 6 universities (SFU, Toronto, Alberta, Victoria, Winnipeg, and Dalhousie)

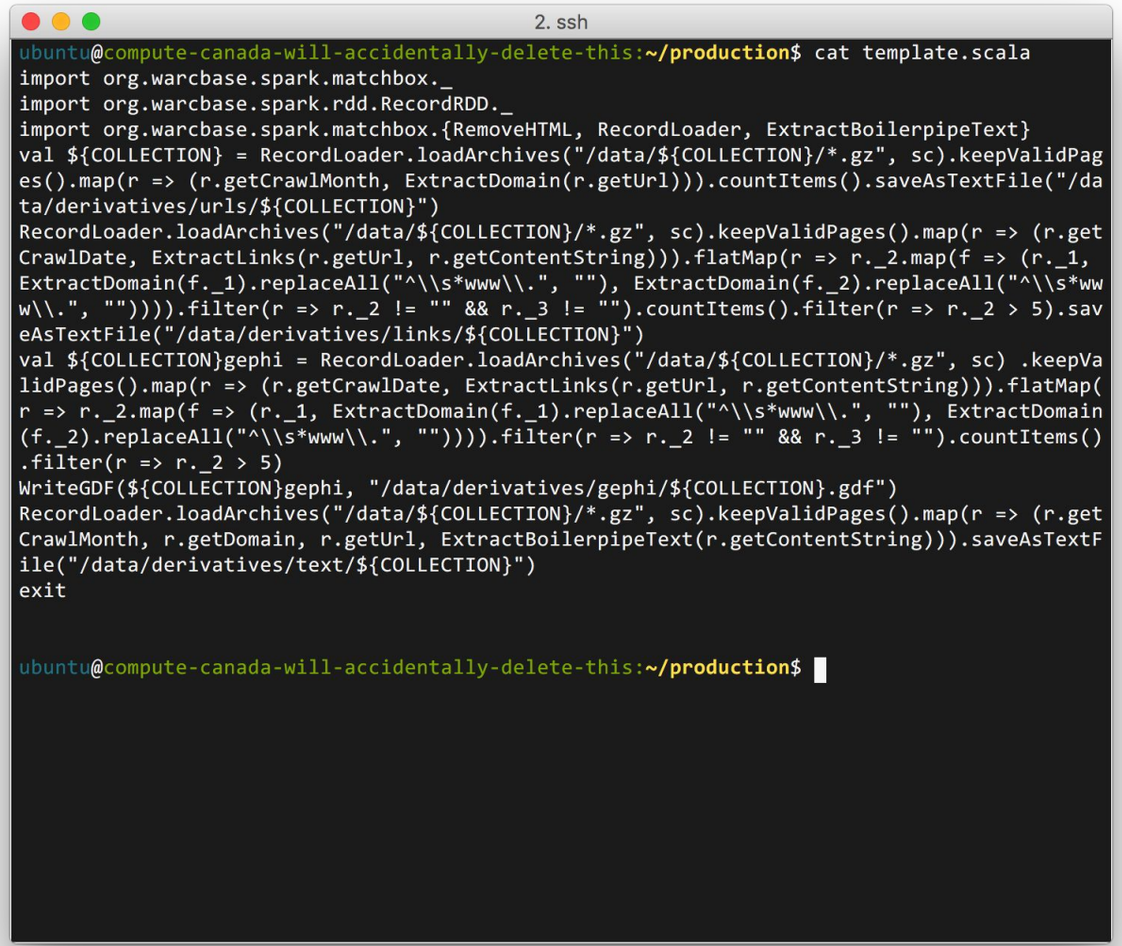
- 61 collections

- 16 TB of web archival collections

- Ingesting them all to generate warcbase derivatives and searchable index

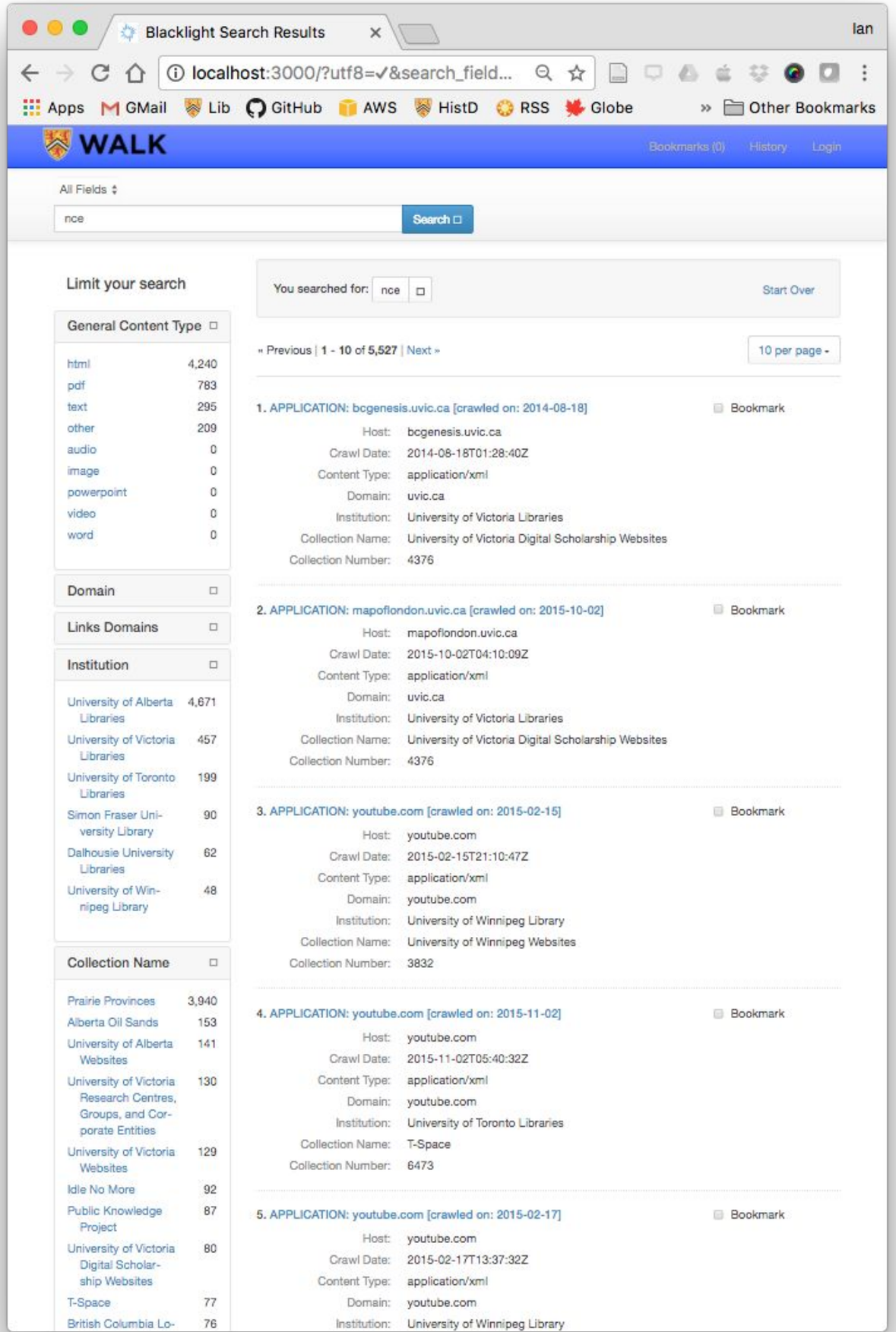
Web Archives for Longitudinal Knowledge

- Mass Ingest Script to take each collection and:
  - Extract hyperlinks and generate gephi files;
  - Extract all URLs and domain counts;
  - Extract plain text;



WebArchives.ca (Blacklight)

- Warcbase with a GUI front end
- Archivists/Librarians bring their collections, generate derivatives
- Hosted with Compute Canada



Where are we at now?

Getting the data;

Definitely a need for a standardized interaction model!

UKWA
and
Andy Jackson,
Thank you!

Indexing

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2017-02-21 22:07:45 ERROR HTMLAnalyser:134 - Failed to canonicalise host: josephmoreau.schoolappointments.
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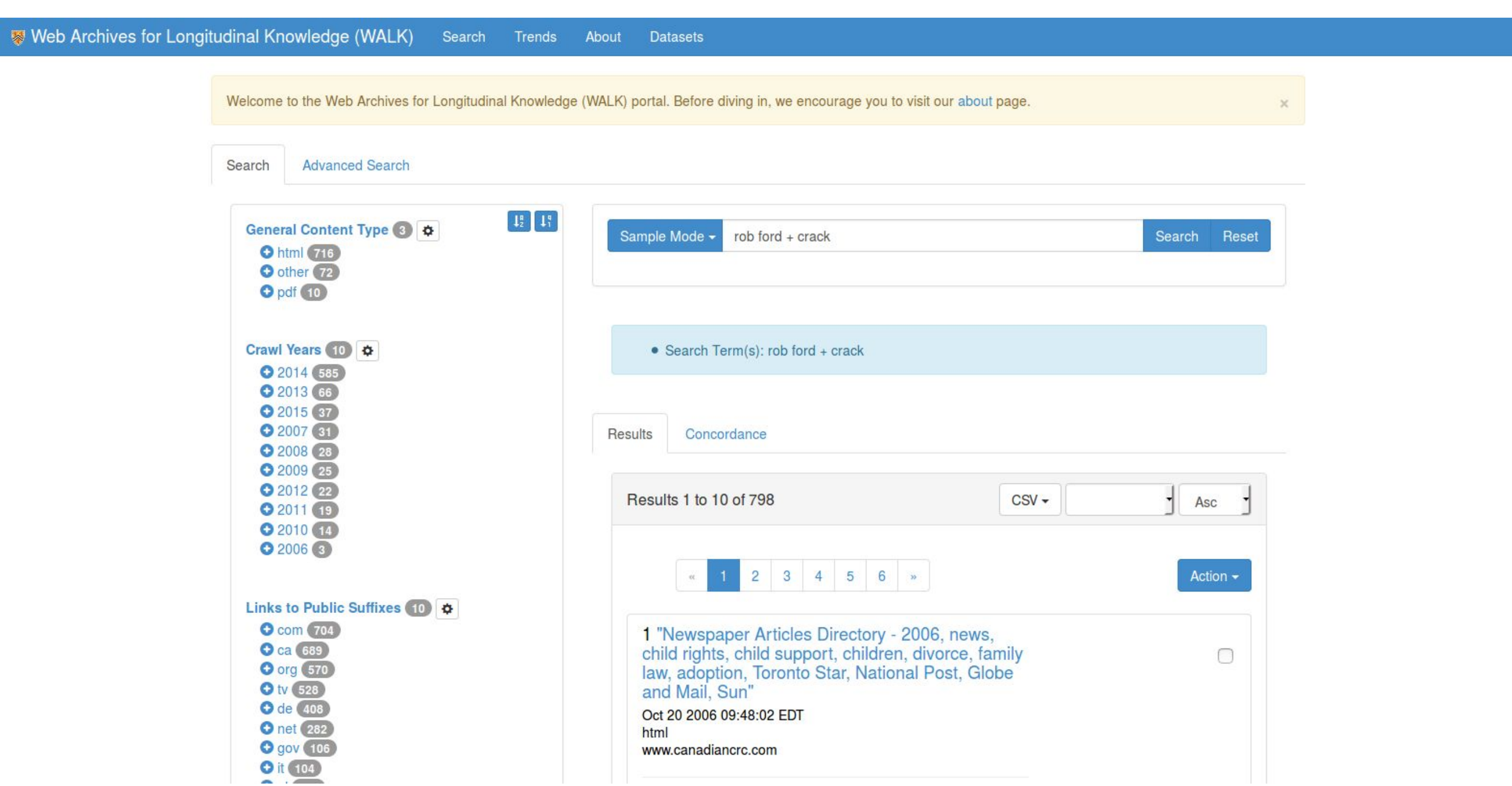
100 Million Solr Docs
525GB Solr index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2015 37
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2011 19
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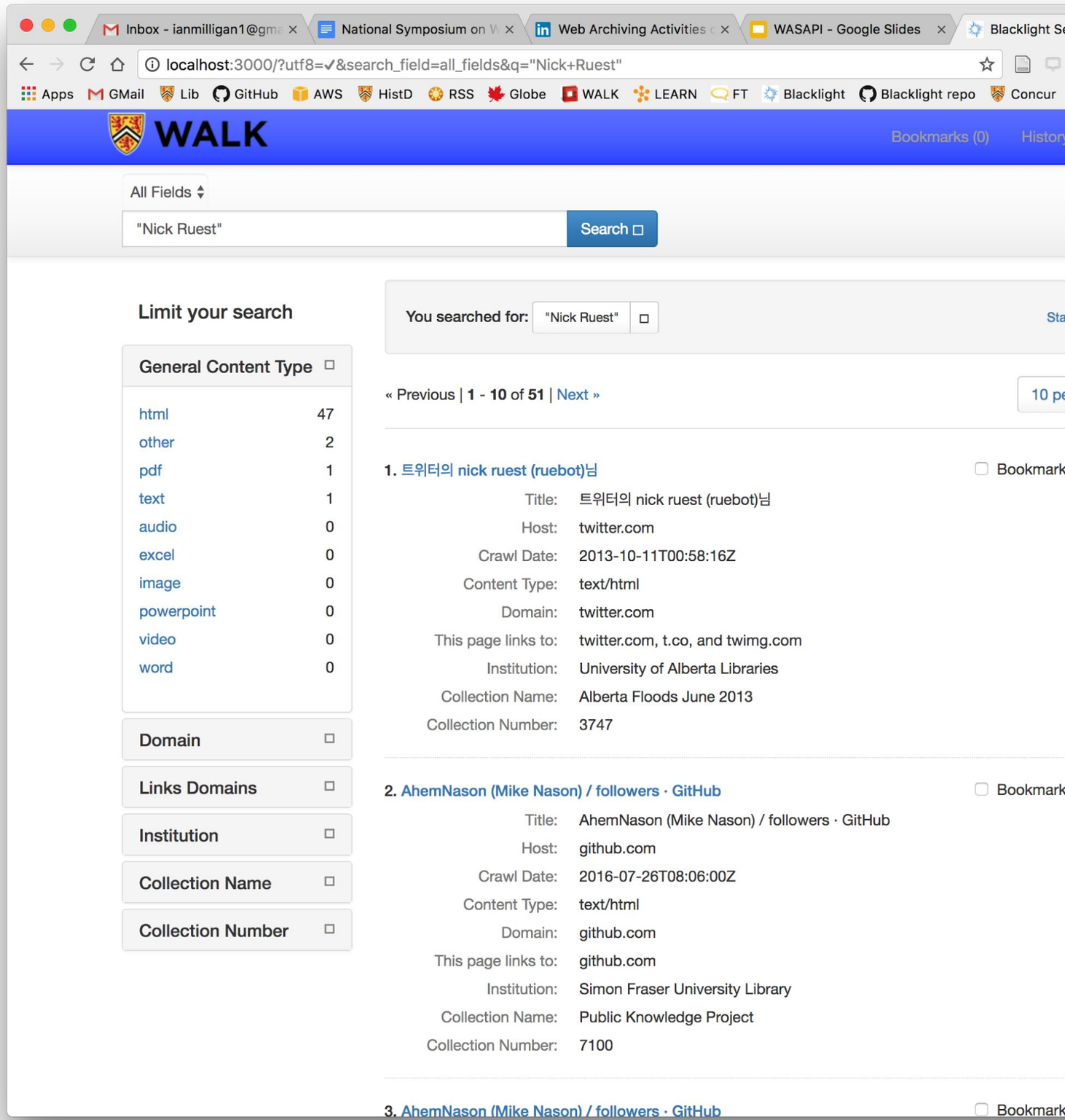
Oct 20 2006 09:48:02 EDT
html
www.canadiancrc.com

Shine

WARClight

prototype



Finding famous people in WARClight, by Ian Millign

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Thanks very much!

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